

these grounds be disposed to regard the former as the representative of a distinct genus.

I find, however, by a comparison of Baron Zigno's figures with skulls of *Halitherium schinzi* and *Prorastomus sirenoides*, that the skull of *Halitherium veronense* differs altogether from the former and agrees with the latter. This is shown in its long and narrow contour, narrow and elliptical narial aperture, slight deflection of the rostrum, and the form of the inferior border of the orbit; all of which are in marked contrast to those of *Halitherium schinzi*. Further, although the molars of *Prorastomus sirenoides* are much worn and are only imperfectly shown, yet one of them clearly exhibits the large anterior talon characteristic of the so-called *Halitherium veronense*, such talon being represented in *H. schinzi* by a much smaller one. The extremities of the jaws of the Venetian species being unknown, I can of course say nothing as to the incisors, which are present in *P. sirenoides*. From the other evidence *H. veronense* may, however, be pretty confidently transferred to the genus *Prorastomus*, or, as it should be, *Prorastoma*, under the name of *P. veronense*.

2. Descriptions of Coleoptera collected by Mr. John Whitehead on Kina Balu, Borneo.—Families *Hispidae*, *Erotylidae*, *Endomychidae*, *Lycidae*, *Lampyridae*, &c. By the Rev. H. S. GORHAM, F.Z.S.

[Received December 23, 1891.]

(Plate IV.)

The Coleoptera of which it is the purpose of this paper to give an account were collected by Mr. J. Whitehead during his residence from 1886 to the middle of 1887 in the neighbourhood of Kina Balu, and for the most part in the early months of those years.

This mountain is a plutonic mass rising abruptly on one side to an altitude of about 13,000 feet, clothed at its base and to about 4000 feet with forest and low trees. Owing to its summit being bare, a denuded granitic surface, few insects were obtained by Mr. Whitehead above that height.

The best collecting grounds were found to be the river-beds, and at the altitudes mentioned the usual tropical conditions obtain. Representing as Kina Balu does the primitive upheaved portions of this part of the world, which have been in all probability above the sea during geologic ages, it was to be expected that both its fauna and flora would prove of the most interesting type, and judging from the few species of insects now under review this certainly appears to be the case.

Several species were unfortunately only represented by single specimens, and some of these I am unable at present to determine. The collection is now in Mr. Alexander Fry's possession, who has kindly placed a portion of it at my disposal for description.

HISPIDÆ.

PRIONISPA, Chapuis.

PRIONISPA PULCHRA, n. sp. (Plate IV. fig. 2.)

Rufa, supra metallico-viridis, prothorace elytrisq̃ue subopacis, rufo-marginatis, grosse punctatis, his tuberculis tribus conicis; humeris costatis, et angulo posteriore spiniformi. Long. 6 millim.

Hab. Borneo, Kina Balu (*Whitehead*).

Body beneath and legs red; head red except the crown; antennæ blackish, their basal joint sometimes wholly red; the front produced and with a carina between the bases of the antennæ; thorax subquadrate, coarsely punctured at the sides, obsoletely so in the middle, green above and opaque, red beneath. Elytra with the shoulders elevated, with a double costate elevation in addition to the costate submarginal interstice, and three conical elevations, of which the middle is the larger and which on its exterior side is excavated, and metallic and not green in that part; the spine-like production of the hind angle is large and sharp and compressed horizontally, it is green in the middle but fiery copper at its apex; the sutural angle is yellow, and the margins of the elytra external to the humeral callus are brownish with a coppery or purple reflexion. The apical margin is not toothed, but there are one or two minute serrations at the base of the spine.

Six specimens of this beetle were obtained by Mr. Whitehead at about 1000 feet altitude on Kina Balu.

HISPOPRIA, Baly.

HISPOPRIA GRANDIS.

Hispopria grandis, Baly, Cat. of Hisp. in Coll. Brit. Mus. 1858, p. 95.

Kina Balu (*Whitehead*), 2 specimens.

ANISODERA (Chevr.), Baly.

ANISODERA, sp. n. (*a*).

Kina Balu. A dull red species apparently belonging to Sect. A. *♂* of Baly's Catalogue. The species of *Anisodera* are so difficult to distinguish, that I do not feel disposed to describe this till I have further acquaintance with them.

ANISODERA, sp. n. (*b*).

Kina Balu (*Whitehead*).

A single specimen of a smaller species with black legs and antennæ, and much rougher elytra and coarsely punctured thorax.

EROTYLIDÆ.

TETRALANGURIA SPLENDENS, Wied.

Kina Balu, many examples.

TRIPLATOMA ATTENUATA.

Triplatoma attenuata, Crotch, Cist. Ent. 1876, p. 405.

Nesites attenuata, Bedel, Rev. Triplatoma, Ann. Mus. Civ. Gen. 1882, p. 10, t. x. f. 5.

Kina Balu. Has occurred also at Sarawak and in Sumatra. Bedel's figure does not give a correct idea of the narrowness of the thorax in proportion to the width of the elytra.

TRIPLATOMA GESTRÖI.

Triplatoma geströi, Bedel, l. c. p. 440, t. x. f. 4; Gorham, P. Z. S. 1883, p. 80, t. 18. f. 1.

Labuan, Sarawak.

Also occurs in Sumatra.

ENCAUSTES MARGINALIS.

Encaustes marginalis, Crotch, Cist. Ent. 1876, p. 477.

Kina Balu.

ASMONAX, genus novum.

Characteres plerumque sicut in Encauste; differt antennarum articulo tertio vix longiore quam secundus, prothoracis lateribus compressis, sinuatis, angulis anticis depressis, disco inæquali, bicostato, elytris interstitiis alternis costato-elevatis.

This new genus is nearly allied to *Encaustes*, but has a very different facies owing to the form of the thorax, and the costæ on it and on the elytra. The front of the prosternum is plain as in *Encaustes*, that is to say, not elevated nor brought into a point in front as in *Micrencaustes*.

ASMONAX WHITEHEADI, n. sp. (Plate IV. fig. 5.)

Anthracinus, niger, nitidus; antennis articulis octo globuliformibus, tertio vix elongato, tribus ultimis transverso-compressis, pubescentibus; capite opaculo, fere lævi, inter antennis transverse impresso; prothorace transverso-subquadrato, ad angulos posticos parum angustato, lævi, in medio nitidulo, obsolete haud acute bicostulato, ad margines subopaco, antice posticeque obsolete fossulato, punctis nonnullis hic illic dispersis, margine laterali tenuiter elevato; elytris tenuiter punctato-striatis, costis tribus elevatis, quarta etiam externa cum suturali ad apicem conjuncta, seriebus duobus inter costas singulas. Abdomen fortiter sparse punctatum. Long. 18-19 millim.

Hab. Borneo, Kina Balu and North Borneo (*Whitehead*).

Wholly black and shining, subopaque in places, as the sides and lateral reflexed underside of the thorax. Owing to the form of the thorax, which has the sides sinuate, turned in and downward at the front angles, and the strong double ridge on the centre of the thorax, this species has a remarkable and Endomychid appearance; the costate elytra are an exaggeration of what takes place in such species as

E. opaca, Crotch. The shortening of the third joint of the antennæ and their bead-shaped appearance show this to be a strongly modified form. The femora are compressed and sinuous just as in *Encaustes*; the middle tibiæ have a tooth-like projection externally, just above the insertion of the tarsi, and are pubescent internally at their apices. The elytral epipleura are pitchy brown, but not noticeably so, and have obsolete transverse wrinkles.

I have only seen four examples of this species, viz. those obtained by Mr. Whitehead. I cannot distinguish the sexes.

ENDOMYCHIDÆ.

AMPHISTERNUS ARMATUS, n. sp. (Plate IV. fig. 3.)

Niger, opacus, obsolete variolosopunctatus; thorace subquadrato, angulis anticis acutis, valde productis; elytris spinis duabus acutis æneo-micantibus, una subhumerali, altera conoidea in medio, apice acute mucronato, tuberculisque duobus nigris nitidis, uno basali uno apicali; femoribus clavatis, apicibus piceis. Long. 8 millim.

Hab. Borneo, Kina Balu (*Whitehead*).

Rather larger than *A. spinicollis*; and at once distinguished from both the described species of *spinous Amphisterni* by the two black tubercles, the produced front angles of the thorax, which are like those of *A. auriculatus* but not reflexed, and by the fiery coppery or æneous colour which is seen on the shining parts. The head is thickly punctured, rather shining, and the antennæ have all the joints from the third to the eighth elongate, the third longer than the two following united; the sides of the thorax are slightly angulate in the middle and narrow a little to the base; the disk is quite opaque, with coarse confluent large punctures. Of the elytra the anterior tubercle has a pitchy tint, the humeral angle is reflexed and smooth, as is the basal margin; the first lateral spine is a little below the shoulder, very long and acute, wide at its base, but compressed if viewed from behind, brassy black; the middle spine more upright but still divaricating, conoidal at its base; both spines punctured at their base, as the elytra are. The posterior tubercle is bluish black and smooth; the apical production of the elytra is external to and independent of the sutural angle, which is itself quite distinct—it is in fact part of the margin itself, the epipleural fold being continued along it as a groove. The legs are brassy black, the club of the femora distinctly pitchy.

Several specimens of this interesting new species were obtained by Mr. Whitehead.

EUMORPHUS TUMESCENS, n. sp. (Plate IV. fig. 4.)

E. marginati statura et similitudine; niger, elytris nigro-cæruleis, late (humeris minus) marginatis, apicibus subacutis, maculis quatuor magnis aurantiacis. Long. 17, lat. 13 millim. ♂.

Mus, elytris in medio conjunctim alte et acute elevatis, prothoracis angulis posticis acutis, haud longe productis; tibiis

anticis infra medium dente acuto valde distante armatis; haud compresso-sinuatis.

Hab. Borneo, Kina Balu (*Whitehead*).

Antennæ longer than in *E. marginatus*, all the joints from the third, and the club, being longer. The thorax is not so broad, especially at the base, the hind angles in the male not being nearly so much produced, but still they are acute; its disk is more uneven, there being in the single male before me an impressed pit on each side of the centre; the elytra have the expanded margin more gradually widened, so that it is narrower at the shoulders than in *E. marginatus*. The four spots are larger in proportion, and placed nearer together than in that species, and they are more acuminate at the apex, and the middle of their disk is much more acutely raised, the summit of this raised part being conical and nearer the two anterior spots than the corresponding part in *E. marginatus*. The front tibiæ in the male are nearly straight, not strongly sinuous nor distorted as in *E. marginatus*, but a little compressed laterally with a short external groove at their apices (for the reception of the tarsi), but not grooved along their whole length.

This insect has also some analogy with *E. turritus*; but the larger yellow spots and the dark blue colour of the elytra, as well as the structure of the tibiæ, will at once distinguish it.

One specimen, a male, obtained by Mr. Whitehead.

EUMORPHUS COSTATUS.

Eumorphus costatus, Gorham, Endom. Rec. p. 34.

Mas, tibiis anticis dente acuto valde distante in medio armatis; tibiis intermediis et posticis mediocriter curvatis, his intus ciliatis.

I believe a single male and female from Kina Balu to be identical with the species described by myself from two female specimens from Celebes. The male has the elytra shining, and with an indistinct violet tint, while the female is subopaque and is distinguished by a short keel on the elytra at their base near the scutellum. The yellow spots are large, and cause the species to recall *E. quadrinotatus*. The male has the hind angles of the thorax acutely produced, by which it is at once separated from *E. quadrinotatus*.

EUMORPHUS GUERINI.

Eumorphus guerini, Gorham, Endom. Rec. p. 33.

Many specimens of this were obtained by Mr. Whitehead; all I have yet seen are males. Hitherto only seen from the Malay peninsula.

EUMORPHUS LUCIDUS, n. sp. (Plate IV. fig. 1.)

Nigro-subviolaceus, nitidus; elytris ovatis, apice acuminatis, maculis duobus rotundatis aurantiacis nitidis, anteriore parum tumida; thorace (feminæ) subopaco. Long. 9 millim. ♀.

Hab. Borneo, Kina Balu (*Whitehead*).

It is difficult to compare this species with any other of the genus;

the elytra are very slightly margined, but are acuminate at their apex, and not very strongly convex. It is entirely black, with the exception that the elytra have a faintly violet tinge and are very smooth and shining, the four spots are moderate in size, and round, very smooth, but not raised; the thorax (of the female) is opaque, with two rather obsolete basal impressions and a central channel, its sides are a little angular in the middle, contracted to the front angles. The antennæ are of moderate length, the fourth to the eighth joints a little longer than wide, the three club-joints subequal, transverse, not much compressed.

Four specimens were found by Mr. Whitehead. This species may be placed after *E. guerini*, Gorh.

LYCIDÆ.

METRIORRHYNCHUS, sp. inc.

Hab. Borneo, Kina Balu (*Whitehead*).

A single example (♀) of a *Metriorrhynchus* allied to *M. geometricus*, but larger, and precisely similar in colour to *Xylobanus reticulatus*, Gorh., of which there is an example from the same region. It is also very close to *M. infuscatus*, Gorh., Notes from Leyd. Mus. iv. 1882, p. 96.

METRIORRHYNCHUS, sp. inc.

Kina Balu (*Whitehead*).

A single specimen of a species allied to *M. sericeus*, but with much brighter red elytra, apical half black.

METRIORRHYNCHUS, sp. inc.

Kina Balu (*Whitehead*).

Unfortunately also a single specimen only of a species with the double rows of cells distinct and wide, black with red elytra, of which the apical quarter is black, and black marks at their base. Allied to *M. cinnabarinus*, Gorh.

XYLOBANUS RETICULATUS. (Plate IV. fig. 6.)

Xylobanus reticulatus, Gorh., Notes from Leyd. Mus. 1882, p. 96.

Hab. Borneo, Kina Balu (*Whitehead*).

A single specimen, apparently of this species.

TELEPHORUS VIRIDANUS.

Telephorus viridanus, Gorh., Notes from Leyd. Mus. vol. iv. 1882, p. 105.

Hab. Borneo, Kina Balu (*Whitehead*).

A single specimen.

LYROPÆUS, n. sp.

Kina Balu (*Whitehead*).

A single specimen of a new species of this remarkable genus.

LAMPYRIDÆ.

VESTA AURANTIACA. (Plate IV. fig. 9.)

Vesta aurantiaca, Ern. Oliv., Notes from Leyd. Mus. vol. viii. 1886, p. 192.

Hab. Borneo, Kina Balu (*Whitehead*).

M. Ernest Olivier has separated under this name specimens of a *Vesta* referred by me to *Vesta urens*, described by myself from Borneo (*cf.* Notes from Leyd. Mus. vol. v. 1883, p. 3). Three specimens collected by Mr. Whitehead on Kina Balu agree precisely with one of these specimens from Sumatra in my possession. As the specimen which M. E. Olivier redescribes as the type of my *V. urens* is now at Leyden, I have no means of forming an opinion on the specific distinction of *V. aurantiaca*, but it certainly occurs in Borneo, as these specimens prove.

PYROCÆLIA, Gorham.

PYROCÆLIA COLLARIS, n. sp. (Plate IV. fig. 7.)

Oblonga, subparallela, opace nigro-fumosa; prothorace brevi, transverso, flavo, distincte at tenuiter carinato, margine antice late et alte reflexo, basi recte truncato, angulis posticis subrectis, nullo modo productis; pygidio flavo. Long. 20 millim.

Hab. Borneo, Kina Balu (*Whitehead*).

Head black, eyes moderate; antennæ long and thin for this genus, nearly as in *P. fumigata*, the joints much longer than wide and not serrate; thorax almost semicircular, with the margins much reflexed, the diaphanous lunules not very translucent. Elytra entirely smoky black, two costules moderately distinct for about two thirds of the length of the elytra, the intermediate one very obsolete; scutellum, head, legs, and body entirely dull black, with the exception of the apical ventral segment and pygidium and of the two luminous patches.

This insect is apparently allied to *P. opaca*, Bourg., described and figured in the 'Annali del Museo Civico di Storia Naturale di Genova,' vol. ii. 1885, p. 349, t. v. f. 2, from which, however, it differs by the scutellum being black, by the entirely black legs and body, and by the absence of the pubescence, and (judging by the figure) by the thinner and not serrate antennæ.

One specimen.

DIAPHANES, Motschulsky.

DIAPHANES APICALIS, n. sp. (Plate IV. fig. 8.)

Breviter oblongus, subopacus, ochraceus; prothorace brevi, margine antice elevato, lunulis duabus translucidis; disco antice tenuissime carinato; elytrorum apicibus, antennis, palpis, pedibus, abdomineque (apice excepto) nigris. Long. 14 millim.

Hab. Borneo, Kina Balu (*Whitehead*).

This species resembles rather closely *Pyrocælia terminata*, Gorh., but from the thin antennæ and the size of the eyes and the clear

translucent spaces of the thorax it ought rather to be placed in the genus *Diaphanes*. The thorax is shorter and has the hind angles less produced than is usual in this genus; the apical ventral plate and the pygidium are yellow; the head, breast, and the extreme base of the legs are yellow, but clouded in parts with fuscous.

One specimen.

EXPLANATION OF PLATE IV.

- Fig. 1. *Eumorphus lucidus*, ♀, p. 87.
 2. *Prionispa pulchella*, p. 84.
 3. *Amphisternus armatus*, p. 86.
 4. *Eumorphus tumescens*, ♂, p. 86.
 5. *Asmonax whiteheadi*, p. 85.
 6. *Xylobanus reticulatus*, p. 88.
 7. *Pyrocalia collaris*, p. 89.
 8. *Diaphanes apicalis*, p. 89.
 9. *Vesta aurantiaca*, p. 89.

3. On the Coleoptera collected by Mr. W. Bonny in the Aruwimi Valley, Central Africa. By the Rev. H. S. GORHAM, F.Z.S., and C. T. GAHAN, M.A.

[Received December 23, 1891.]

In the following paper the Coleoptera of the families Cleridæ, Bostrychidæ, Chrysomelidæ, Galerucidæ, Cassidæ, Hispidæ, Erotylidæ, and Coccinellidæ collected by Mr. W. Bonny during the Emin Relief Expedition are noticed and the presumed new species are described, in continuation of the accounts already furnished by Mr. Bates (P. Z. S. 1890, pp. 479-492, and Mr. Champion, pp. 637-646). The species of which examples were represented were not numerous, but the same remarkable coincidence specifically with the Coleoptera of the West Coast, especially of Old Calabar, will be noticed.

The Phytophaga, with the exception of the Cassidæ and Hispidæ, have been kindly worked out by Mr. Gahan of the British Museum.

Family CLERIDÆ.

1. *CYLIDRUS FASCIATUS*, Laporte.

Cylidrus fasciatus, Laporte, Cast. Silb. Rev. iv. p. 35.

Var. B. SPINOLÆ.

While the type of this species is from Senegal, the var. B is recorded from Madagascar. It is also in my collection from Natal.

Family BOSTRYCHIDÆ.

2. *APATE TEREBRANS*, Pallas.

Apate terebrans, Pallas, Spicil. Zool., Ins. p. 7.

3. *APATE* sp. inc.

Probably *A. productus*, Imhoff.